

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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In the Matter of)	
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Facilitating the Deployment of Text-to-911)	PS Docket No. 11-153
and Other Next Generation 911 Applications)		
)	
Framework for Next Generation 911)	PS Docket No. 10-255
Deployment)	
)	

TELECOMMUNICATIONS FOR THE DEAF AND HARD OF HEARING, INC.;
NATIONAL ASSOCIATION OF THE DEAF;
ASSOCIATION OF LATE-DEAFENED ADULTS, INC.;
HEARING LOSS ASSOCIATION OF AMERICA;
DEAF AND HARD OF HEARING CONSUMER ADVOCACY NETWORK;
CEREBRAL PALSY AND DEAF ORGANIZATION;
CALIFORNIA COALITION OF AGENCIES SERVING
DEAF AND HARD OF HEARING PEOPLE;
TECHNOLOGY ACCESS PROGRAM AT GALLAUDET UNIVERSITY

Dated: January 29, 2013

INTRODUCTION

This document offers the perspective of consumer groups composed of the deaf and hard of hearing population in the United States on developing protocols implementing automated error messages for failed Text-to-911 attempts, strategies for

outreach and education, and managing consumer expectations pursuant to further notice of proposed rulemaking that was published in the Federal Register on January 9, 2013.¹ Coordinated by Telecommunications for the Deaf and Hard of Hearing (TDI), this coalition of consumer groups includes Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN), National Association of the Deaf (NAD), Hearing Loss Association of America (HLAA), Association of Late-Deafened Adults, Inc. (ALDA), Cerebral Palsy and Deaf Organization (CPADO), California Coalition of Agencies Serving Deaf and Hard of Hearing People (CCASDHH), and Technology Access Program at Gallaudet University (TAP), collectively known as “Consumer Groups and TAP”.

SUMMARY

The Consumer Groups and TAP urge the Federal Communications Commission (Commission) to take the proactive lead in implementing the interim solution as recommended by consumers and endorsed by industry. This Text-to-911 solution not only provides access for people who are deaf and hard of hearing as well as other TTY users, but also provides a viable alternative for hearing people who due to circumstances are not able to use their voices while calling 9-1-1. Since the implementation period for this solution will be lengthy and varied, the Commission’s proposal of requiring bounce-back error messages, along with education and outreach will alleviate the confusion of text users attempting to summon emergency assistance. Every American regardless of ability has a right to easy and convenient access to emergency services no matter where in the country he or she lives or is visiting.

¹ <https://www.federalregister.gov/articles/2013/01/09/2013-00159/next-generation-911-text-to-911-next-generation-911-applications>

AUTOMATED ERROR MESSAGES FOR FAILED TEXT-TO-911 ATTEMPTS

AUTOMATED ERROR MESSAGE PROPOSAL

The Consumer Groups and TAP applaud the Commission for having the foresight to require automated error bounce-back messages for users who attempt to reach 9-1-1 during emergencies in areas that are not yet configured to support SMS text messages. This requirement will serve to provide acknowledgement that a message was received, but due to current technology in place for that area, the responders are unable to receive the text message and respond.

9-1-1 has come to signify that emergency assistance is only a phone call away. Title II of the Americans with Disabilities Act of 1990 (ADA)² mandated equal access to state and local government services, including access to all public safety services. With few exceptions, it has served the entire population well when people could contact 9-1-1 services through the telephone and/or the TTY on the legacy network. We understand that public safety agencies plan to migrate to a new 911 system called Next-Generation 9-1-1 (NG9-1-1) in the next five to ten years. Under NG9-1-1, public safety services will evolve to include advanced communications services such as electronic messages, SMS messages, video conferencing services, Real Time Text (RTT)³ and more. NG9-1-1 is not scheduled to be implemented nationwide for several years due to gaps in technologies and funding issues. Because nowadays, the TTY is only used by very few deaf and hard of hearing people who now communicate largely via video, email and text, an interim text solution is necessary to permit people who cannot hear or speak on the phone due to

² <http://www.ada.gov/emergencyprepguide.htm>

³ http://en.wikipedia.org/wiki/Real-time_text

disability or circumstances to be able to send text messages to their most appropriate 9-1-1 center. In addition, major high-profile news events such as the Virginia Tech massacre and the Sandy Hook school shootings, dramatically highlights the need for texting capabilities as an alternative way to summon help. Several jurisdictions have implemented trials with promising results⁴.

For areas without text-to-911, bounce back error messages are critically important. Below are two examples of acceptably worded messages, which acknowledge that the user is attempting to text 9-1-1. Because the text service is not available, the message advises the caller to contact 9-1-1 via a different method.

The first example is from Timothy Allen Lewis (AZ), who typed TEST to 9-1-1. Immediately, he received an error message from his carrier:

THIS IS A FREE MESSAGE FROM XXXcarrierXXX. THERE IS NO TEXT SERVICE TO 911 AVAILABLE AT THIS TIME. PLEASE MAKE A VOICE CALL TO 911⁵.

The second example is from James House (MD), who received the following text message from a different carrier within a few seconds:

CALL 9-1-1 FOR EMERGENCY. TEXT TO 9-1-1 SERVICE NOT AVAILABLE.

The third example is a reply message that Richard Ray (CA), and Claude Stout (MD) received on their devices. In contrast with the first two examples, this message

⁴ http://news.cnet.com/8301-1035_3-57507369-94/at-t-to-test-text-to-911-service-in-tennessee/ and <http://govpro.com/technology/wireless/UC-Spring-20121205/>

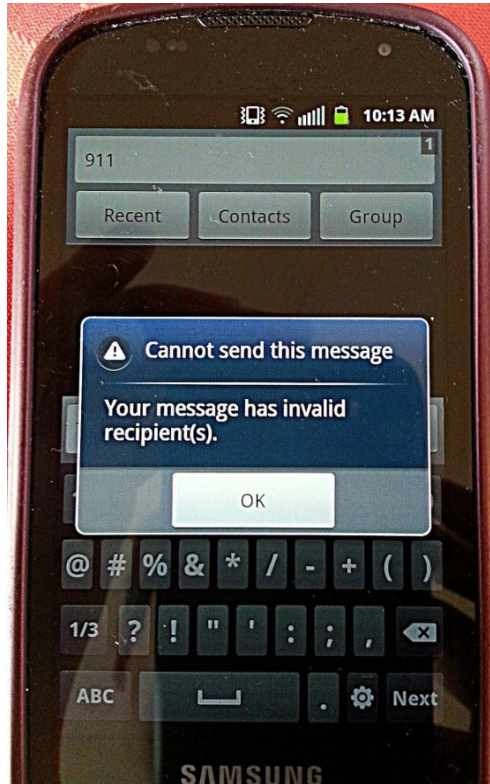
⁵ Private posting by Timothy Allen Lewis to TDI West Region Facebook page (Wed, Jan 23, 2013, 3:56 PM) (on file with author).

from the third carrier did not acknowledge a 9-1-1 call to both callers in two states, and the directions were not clearly intended for 9-1-1 error bounce back message:

-- 911 ERROR INVALID NUMBER. PLEASE RE-SEND USING A VALID 10 DIGIT MOBILE NUMBER OR VALID SHORT CODE. --

The last example was received from Krystallo Tziallila (MD) and shows a phone that refuses to send out a text message to 9-1-1 altogether with the error

-- CANNOT SEND THIS MESSAGE --- YOUR MESSAGE HAS INVALID RECIPIENT(S) --



Unlike the other instances, this phone does not even seem to attempt to contact the carrier network, as the operating system interprets the three-digit code as invalid. Thus, there may be phones available on the market that are incapable of receiving 9-1-1 bounce back messages altogether, let alone successfully text to 9-1-1.

The 21st Century Communications and Video Accessibility Act of 2010 (CVAA) touches on emergency access in a major way. CVAA mandated the establishment of the Emergency Access Advisory Committee (EAAC), which was tasked to study access issues to emergency services by people with disabilities. According to the first EAAC Report to Congress, the handling of voice 9-1-1 calls and eventually text messages will generally remain a local function; certain aspects of transitioning to NG9-1-1 will require state-level planning and implementation coordination. Given that the transition will take years to implement, on March 12, 2012, the EAAC adopted a resolution to support "as an interim solution for text to 9-1-1, at a minimum, SMS, and other technologies as appropriate, with a three-digit short code 9-1-1." This motion was so critical in prodding the wireless industry to move toward providing direct access to emergency services.⁶

The Consumer Groups and TAP appreciate the willingness of the four major carriers and the public safety professions to support and implement automated bounce back error messages. However, because of the life saving impact this will have on public safety for all wireless device users, we believe this voluntary effort should be codified into regulations requiring that all service providers, including small and rural carriers do their part in implementing the error messages. Therefore, we concur with the Commission that regardless of industry efforts, there should be regulations, and that the scope be extended to all CMRS providers.

The Consumer Groups and TAP also support the Commission's proposal to require all carriers to provide bounce back error messages by June 30, 2013. We are not aware of any reason or technical difficulty that may prevent smaller carriers from

⁶ <http://eaac-recommendations.wikispaces.com/Chapter+4+Jurisdiction+Authority+and+Regulatory+Role>

implementing bounce back text-to-911 error messages. The Consumer Groups and TAP oppose granting exemptions or waivers to this bounce back error message requirement.

In the interest of fostering widespread public awareness, Consumer Groups and TAP believe the Commission should require all “closed” non-interconnected IP-based messaging applications to state that their services do not support Text-to-911. In the event that some users inadvertently attempt to send a text message to 9-1-1, the application should notify the user that the message did not go out and to refer the user to use alternative methods to contact 9-1-1.

The Consumer Groups and TAP do not support the FCC proposal to waive error messages due to network lapses. Consumers expect an immediate response within a few seconds either acknowledging their message or to inform them that the message was not sent. This should follow as closely as technically feasible with a National Emergency Numbering Association (NENA) protocol requiring that the Average Speed of Answer (ASA) standard for voice calls to 9-1-1= 90% of all calls answered within 10 seconds and during peak hours, 95% of all calls be answered within 20 seconds.⁷

The EAAC draft recommendation for bounce-back messages is:

"Bounce-Back message: Users will expect to receive information on the success or failure of a text-to-9-1-1 message. If PSAPs in an area do not support text-to-9-1-1 yet, the user will expect to receive an automated text response immediately that states that text-to-9-1-1 is not available and that a call should be made to 9-1-1. Note: It is important that the content of this message be accessible to people with widely varying reading abilities, and

⁷http://c.ymcdn.com/sites/www.nena.org/resource/collection/ABEAA8F5-82F4-4531-AE4A-0AC5B2774E72/NENA_56-005_9-1-1_Call_Answering_Standard.pdf

as such needs to be crafted carefully to consider the unique needs of people with disabilities. "

Consumers should know whether the bounce back message is the result of the inability of the most appropriate PSAP to receive messages, or if the application by design or by circumstance was not able to transmit (such as due to network congestion or due to roaming), regardless if the PSAP is accepting text messages or not.

Due to the typical 160+/- text character limitations on SMS devices, it is imperative that the error message be simple and concise, and easy to understand. The error message should contain the type of error, and brief instructions on calling the most appropriate 9-1-1 center, avoiding jargon and other unnecessary text.

The Consumer Groups and TAP suggest the following example of a bounce back error text message that includes sufficient information the user needs to know why the call was not received:

**YOUR TEXT TO 9-1-1 WAS NOT RECEIVED BECAUSE
TEXT SERVICE IS NOT AVAILABLE IN THIS AREA.
DIAL 9-1-1 BY VOICE OR USE RELAY.**

The next example of an error message should be used where the text-to-9-1-1 service has already been implemented, but momentary glitches due to a pocket of poor reception or network congestion prevents transmission of the message. Caller may have the option of trying to text again.

**YOUR TEXT TO 9-1-1 WAS NOT RECEIVED BECAUSE
OF NETWORK PROBLEMS. DIAL 9-1-1 BY VOICE OR
USE RELAY.**

The Consumer Groups and TAP do not concur that mentioning relay would cause more confusion for hearing people, and even experienced relay users need to know that

their options include a direct TTY or VCO call, or an indirect call using any form of relay service.

The Consumer Groups and TAP recommend that the carriers collect data on attempted calls to 9-1-1 to ascertain the need for calls, track the implementation of the service, and document incidents of SMS failures, especially due to roaming. The assumption underlying the voluntary agreement is that SMS-to-9-1-1 will not be available to users when roaming⁸, but we do not have data on how common the situation is. The Consumer Groups and TAP are concerned that a large number of people could be potentially left out of accessing 9-1-1, and recommend that this situation be analyzed for further follow-up. This information should be available to third parties. Furthermore, if technically feasible, as PSAPs go online, they can send out a cell broadcast announcing the new service.

CONSUMER EDUCATION

Extensive consumer education would be necessary to ensure that callers with disabilities understand the limitations of texting as it applies to their community, and for when texting becomes available. Consumers will need to understand that unlike landline telephones, location identification is not as precise on wireless devices. Because some consumers may not be as familiar with their current locations, text-to-911 should send out an address or a numerical latitude/longitude coordinates to assist first responders in detecting the caller's location.

Consumers need to understand the capabilities in this regard with GPS will be very limited for text-to-911. In a best case scenario a GPS can only give out a street

⁸ FNPRM at 19.

address. What if the address is to a ten story apartment building? Where is the caller/person texting who needs help? It is very important that education and outreach efforts to consumers emphasize the importance of including specific location in text messages when it is available. Caller should be aware to type information to guide the responders: "I am in apartment B"; "I am under the kitchen table". Text messaging won't be able to pinpoint the exact location of callers for voice or text in most cases for a very long time, but education can teach folks that if they are going to use text to 9-1-1 when available they would need to include details as to location in their texts.

The Consumer Groups and TAP recommend that the FCC contract with independent consumer based organizations, and/or regional coalitions to provide direct training to consumers in their communities. Regional coalitions may be chapters of national deaf consumer organizations, community centers for deaf and hard of hearing people, or centers for independent living that serves people with all types of disabilities. Online resources such as described in Bandwidth.com's comments⁹ will need to be developed that will track jurisdictions that have implemented or is scheduled to implement text-to-911. To cover the costs of such training, we urge the Commission to set aside one million dollars from the Interstate TRS Fund to provide funding for each of the first two years. This is on par with outreach funds allocated for the National Deaf Blind Equipment Distribution Program.

Additionally, a nationwide PSA campaign can be implemented where there is a message directed to all consumers about the availability or nonavailability of text-to-911

⁹ <http://apps.fcc.gov/ecfs/document/view?id=7021746969>

services in their communities. This effort can be coordinated between telephone companies, Internet providers, wireless service vendors and public safety agencies.

The Consumer Groups and TAP support development of a testing protocol where typing TEST to 9-1-1 will generate either an error message or an acknowledgement that the system is working. For any other messages sent to 9-1-1, it shall be considered an emergency call and handled accordingly. The FCC should have a website where people can check to see if they can text 9-1-1 in certain areas of the country.

The Consumer Groups and TAP strongly urge standardization in training and streamlining accessibility requirements as a way to bring 9-1-1 services into the 21st Century.

CONCLUSION

The Consumer Groups and TAP urge the Commission to implement the interim measure of requiring clear and concise error bounce back messages quickly and accurately. Also the Commission should immediately launch a public education and outreach program that will transition over time from maximizing the effectiveness of text messages to the benefits of the upcoming NG9-1-1 network. Millions of people, whether they are hearing, deaf, hard of hearing, deaf-blind, or have motor or speech disabilities, have a legitimate expectation today as a civil right that 9-1-1 services be fully accessible to them, regardless of what communication mode they use.

Respectfully submitted

/s/

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